



# Fossils on America's Public Lands

BLM



*Tyrannosaurus rex*. *Allosaurus*. *Triceratops*. The mere words send the imagination soaring. Public lands in the American West contain a vast array of evidence of ancient life, often in extensive badlands, which are arid and deeply eroded terrain. *Allosaurus*, *Stegosaurus*, *Deinonychus*, and *Pentaceratops* once roamed what is now public land.

Other fossils, perhaps less vivid in the imagination than dinosaur skeletons, but no less wonderful, include: perfect leaves and flowers; dinosaur tracks on a 165-million-year old beach; schools of fish filleted by scavengers; forests of ancient redwoods; and the oldest known parrot. All are preserved on our public lands or housed in museums.

## What are Fossils?

Fossils are the remains or traces of activity from any organism preserved in the earth's crust. Generally, fossilization occurs as organic material is replaced by minerals. Paleontology is the study of those remains.

## Why Is Studying Fossils Important?

Scientists get clues from the tiniest bacteria to the largest creatures, which help solve the fascinating riddles of life on Earth and tell us about the physical changes in the Earth itself. Fossils have shown us the ways in which all life forms are interdependent and affected by the environment. Through careful collection and study of our nation's fossils, scientists learn the story of origins and endings—life, death, and change—played out over nearly 3.5 billion years of the Earth's 4.5 billion-year history.

Fossils provide clues to a myriad of important and intriguing questions, from the "hot" topic of dinosaur extinctions to studies of plate tectonics (the geology of the Earth's structural deformation). Consequently, public lands provide great outdoor laboratories and classrooms for the study of paleontology and also contribute significantly to public exhibits found in museums.

For example, BLM's Cleveland-Lloyd Dinosaur Quarry in Utah has produced fossils that are exhibited in over 40 museums worldwide. Undamaged, fossil resources can reveal not only how plant and animal communities have changed, but how the face of the earth has been altered by the movement of continents, the uplift of mountain ranges, the appearance and disappearance of ice caps, and the flooding and drying of huge areas of land.

## Can I Collect Fossils?

On public lands, people may collect a reasonable number of invertebrates [animals without backbones, such as trilobites, ammonites, and brachiopods], plant fossils, and petrified wood specimens for personal, non-commercial use, without a permit. Several important invertebrate and plant fossil sites and other special management areas have restrictions on collecting and access; amateur collectors and enthusiasts should stop by the nearest BLM office to check on local conditions before collecting.

ANTIQUITIES ACT • 100 YEARS OF PRESERVATION • 1906 - 2006



Permits are required to collect fossil remains and traces of animals with backbones (vertebrates). Vertebrate fossils are fragile and complex; and permit applicants must show a level of training and experience in order to be approved. Because vertebrate fossils collected under a permit belong to the people of the United States, the specimens must be kept in an approved repository for scientific study, display, and educational purposes, thus ensuring that the materials will be available for future study.

### What Can I Do?

Members of the public have made important vertebrate fossil discoveries on public land. Each summer, museums and universities conduct field expeditions to BLM lands in the West under permits. Fossil enthusiasts can get involved and contribute to paleontology by volunteering at museums and educational institutions to study and work alongside trained paleontologists. Discovery, fieldwork, preparation, and curation are all components of such paleontology work. And casual visitors can help protect unique resources by reporting the location of any vertebrate fossils found on BLM lands to the nearest BLM office. <<<



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## Adventures in the Past Media Room

In 2006 the Bureau of Land Management (BLM) is celebrating the 100th anniversary of one of the most important pieces of legislation in the field of historic preservation: the Antiquities Act of 1906. BLM land contain the largest, most diverse, and most scientifically important body of cultural resources of any Federal holdings.

As a part of a national initiative, BLM state and field offices are highlighting heritage resources (archaeological, historical, and paleontological) in their areas, and utilizing existing events, opportunities, partnerships to promote the Centennial. In addition, BLM is striving to share a citizen stewardship message to reach public land users, students, volunteers, partners, heritage tourists, and others.

Nationally, a number of products and strategies have been produced for use by BLM employees and partners to support the Centennial: This web site contains these resources .

### Fact Sheets

Fact Sheets - **right click on the link and then left click "Save Target As..." to save to your local computer**

- [The Antiquities Act: A Century of Historic Preservation](#)
- [Cultural Resources on America's Public Lands](#)
- [Heritage Resources Provide Educational Opportunities](#)
- [Fossils on America's Public Lands](#)
- [Discover, Enjoy and Protect Cultural and Fossil Resources](#)
- [Outdoor Ethics for Heritage Sites](#)

### Calendar of Events

As part of the BLM's Adventures in the Past program dozens of events are being planned throughout the West to celebrate the Centennial of the Antiquities Act of 1906. [View](#)

### Media Advisory/News Release/Professional Presentations

- [Explore the historic Alpine Loop](#) and help us celebrate the centennial anniversary of the 1906 Antiquities Act.
- [Remarks delivered by Elena Daly](#), Director, National Landscape Conservation System, San Juan County Antiquities Act Centennial Celebration Blanding, Utah June 10, 2006
- [Finding New Country: Landscapes and Archaeology](#), remarks delivered by Susan Schlanger, New Mexico State Office on the occasion of the 100th anniversary of the Antiquities Act.
- [Old Meets New: The Antiquities Act, Resource Management, and the Urbanizing West](#), paper presented at the Society for American Archaeology Conference, April 27, 2006, San Juan, Puerto Rico

- [100 Years of Historic Preservation to be Celebrated During the 2006 Antiquities Act Centennial](#)
  - [BLM Celebrates Antiquities Act Centennial with New "Adventures in the Past" Website](#)
  - [B-Roll Footage Spotlights Fascinating and Diverse Heritage Resources on America's Public Lands](#)
  - [Antiquities Act B-roll Run Sheet](#)
  - [Questions and Answers About Heritage Resources on America's Public Lands](#)
  - [Questions and Answers About BLM's Adventures in the Past/Antiquities Act Centennial Plan](#)
  - [Op-ed: Centennial of the Antiquities Act of 1906](#)
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## **BLM Cultural Program and Public Affairs Representatives**

Find a complete list of BLM Cultural Program, Public Affairs, and Heritage Education Representatives

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## **Places to Visit/Story Ideas/Digital Photos**

- [Overarching Story Ideas](#)
  - [Story Ideas; Research Projects](#)
  - [Places to Visit](#)
  - [Bureau of Land Management Digital Photo Library](#)
  - [BLM Heritage Resources Video Dial-up \(256k, 5 MB\)](#)  
[Broadband \(768k, 15 MB\)](#)
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## **Links to BLM State Web Pages**

- [Alaska](#)
- [Arizona](#)
- [California](#)
- [Colorado](#)
- [Eastern States](#)
- [Idaho](#)
- [Montana](#)
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